

JUNE 1



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

④

**D350-748-241TRN**  
**Job Sheet 174762**



Part No: D350-748-241TRN

Job Qty: 1 ea

Part Name: Crosstube Turning Detail



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 3/21/18

Job Tracking No:

Due Date: 6/1/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: D350-748-241 REV H IPP Rev:A New Issue 08-03-06 DD verified by:ec IPP Rev B Removed polish 08.04.02  
EC verified by : DD IPP Rev C Removed LPS-3 08.06.23 Ec verified by: DD IPP Rev D 11.02.24 as per dwg  
rev.F DD verf: JLM

Ship Via:

### Bill of Materials

### Job Routing

| Op No | Operation          | Qty   | Start Date | Due Date | Standard  |         | Workcenter/Supplier   |           | Sign-off       |
|-------|--------------------|-------|------------|----------|-----------|---------|-----------------------|-----------|----------------|
|       |                    |       |            |          | Setup hrs | Run Hrs | Workcenter / Supplier | Lead Time |                |
| 90    | Start up Operation | 1 Ea  |            | 5/31/18  | 0.00      | 0.00    | Start Up Crosstubes-1 |           | M.D            |
| 100   | Mori Seiki         | 1 pcs |            | 5/31/18  | 7.06      | 2.81    | Mori Seiki TL-40      |           | M.D            |
| 110   | QC                 | 1 pcs |            | 5/31/18  | 0.00      | 0.00    | QC2-1                 |           | M.D            |
| 120   | Mori Seiki         | 1 pcs |            | 5/31/18  | 0.00      | 2.81    | Mori Seiki TL-40      |           | M.D            |
| 130   | QC                 | 1 pcs |            | 5/31/18  | 0.00      | 0.00    | QC2-1                 |           | M.D            |
| 140   | QC                 | 1 pcs |            | 5/31/18  | 0.00      | 0.00    | QC8                   |           | SP/26          |
| 150   | Crosstubes         | 1 pcs |            | 6/1/18   | 0.00      | 0.97    | Crosstubes-2          |           | GP 18-06-01    |
| 160   | QC                 | 1 pcs |            | 6/1/18   | 0.00      | 0.00    | QC15                  | N/R       |                |
| 170   | Outsource          | 1 pcs |            | 6/1/18   | 0.00      | 0.00    | Outsource1            |           | CT 18-6-5      |
| 180   | Packaging          | 1 pcs |            | 6/1/18   | 0.00      | 0.00    | Packaging2            |           | 18-07-11       |
| 185   | QC                 | 1 pcs |            | 6/1/18   | 0.00      | 0.00    | QC6                   |           | 18-07-18       |
| 190   | Packaging          | 1 pcs |            | 6/1/18   | 0.00      | 0.00    | Packaging3-1          |           | 18-07-18       |
| 200   | QC21-SA            | 1 Ea  |            | 6/1/18   | 0.00      | 0.00    | QC21                  |           | 21 JUL 20 2018 |

18/07/11

38HRC  
St. 043

Part Op 100 - 1-Fill tube with sand & install plugs on both ends as per Folio FA647 2-Turn first side as per Folio FA647 3- File Descriptions: transition lines smooth. FOLIO REV: H DWG REV: H

120 - 1-Turn second side as per Folio FA647 2- File transition lines smooth. 3-Scribe part # as per Dwg D350-748-241 FOLIO REV: H DWG REV: H

130 - PERFORME ULTRASONIC MEASUREMENT

150 - 1-DRILL HOLES FOR HEAT TREAT USING DT9806(HOLES MUST BE ALIGNED ON SAME LINE ON BOTH CUFFS) 2-Grind machining marks

170 - Issue P/O: 040165 Heat Treat to min 180 KSI As per Dwg D350-748-241 \*\*\*Check for straighten and ensure parts are straight within 1/8" as per dwg \*\*\* Sand Blast tube after Heat Treat Possible Supplier: Vac Aero Ensure Certificate of Conformity is attached and Metlab process spec form

190 - Identify and stock in kanban rack

### Job BOM

| Part / Item | Component Name     | Quantity    | Operation             | Container |
|-------------|--------------------|-------------|-----------------------|-----------|
| D6015-125   | Crosstube Material | 1 Ea (1 ea) | 90-Start up Operation |           |

B128725

### Job Allocations

| Operation             | Component Part | Required | Inventory | Allocated |
|-----------------------|----------------|----------|-----------|-----------|
| 90-Start up Operation | D6015-125      | 1        | 0         | 0         |



DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                              |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Thermoforming <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/><br/>           Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/><br/>           Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Quality <input type="checkbox"/><br/>           Other <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                         |  |                                              |  |
| Date : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Step #: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | QTY Effective : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | MRB (QSI042) Approval                        |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | Completed By                                 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | Lead hand / Supervisor Approval Verification |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | QC / QA Coordinator Approval                 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                              |  |
| Root Cause                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | FAULT CATEGORY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                              |  |
| <div style="display: flex;"> <div style="flex: 1;">           Environment <input type="checkbox"/><br/>           Design <input type="checkbox"/><br/>           Doc/Data <input type="checkbox"/><br/>           Equip/Tooling <input type="checkbox"/><br/>           Handling/Pre <input type="checkbox"/><br/>           Material <input type="checkbox"/><br/>           Internal Transport <input type="checkbox"/><br/>           Tribal Knowledge <input type="checkbox"/><br/>           LOA <input type="checkbox"/><br/>           Substation <input type="checkbox"/><br/>           Past Expiry Date <input type="checkbox"/><br/>           Misidentified <input type="checkbox"/> </div> <div style="flex: 1;">           No Re-verification <input type="checkbox"/><br/>           Operator <input type="checkbox"/><br/>           Offset/Setup <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Training <input type="checkbox"/><br/>           Use for Testing <input type="checkbox"/><br/>           Poor Information <input type="checkbox"/><br/>           Rushing <input type="checkbox"/><br/>           Product Improvement <input type="checkbox"/><br/>           Process Improvement <input type="checkbox"/><br/>           Manufacturing Process <input type="checkbox"/><br/>           Past Due <input type="checkbox"/> </div> </div> | <div style="display: flex;"> <div style="flex: 1;">           Pressure/Forced <input type="checkbox"/><br/>           Bending <input type="checkbox"/><br/>           Centre Not Concentric <input type="checkbox"/><br/>           Cracks <input type="checkbox"/><br/>           Crimp/Kink/Ripple/Wave <input type="checkbox"/><br/>           Cuffs <input type="checkbox"/><br/>           Crushing <input type="checkbox"/><br/>           Heat Treat <input type="checkbox"/><br/>           Wave/Twist in Tube <input type="checkbox"/><br/>           Marks/Chatter <input type="checkbox"/> </div> <div style="flex: 1;">           Temperature/Cure <input type="checkbox"/><br/>           Set-up <input type="checkbox"/><br/>           BOM/Route <input type="checkbox"/><br/>           Broken/Damage/Defect <input type="checkbox"/><br/>           Inspection Incomplete/Unqualified <input type="checkbox"/><br/>           Contamination <input type="checkbox"/><br/>           Countersink <input type="checkbox"/><br/>           Cut Too Short <input type="checkbox"/><br/>           Instructions Incomplete/Unclear <input type="checkbox"/><br/>           Drill Holes <input type="checkbox"/> </div> </div> | <div style="display: flex;"> <div style="flex: 1;">           Power Loss/Surge <input type="checkbox"/><br/>           Folio/Program <input type="checkbox"/><br/>           Grain <input type="checkbox"/><br/>           Weld <input type="checkbox"/><br/>           Wrong Stock Pulled <input type="checkbox"/><br/>           Out of Sequence <input type="checkbox"/><br/>           Off-set <input type="checkbox"/><br/>           Misabeled <input type="checkbox"/><br/>           Fit/Function <input type="checkbox"/><br/>           Misaligned/off center <input type="checkbox"/> </div> <div style="flex: 1;">           Positioned Wrong <input type="checkbox"/><br/>           Outside Dimensions <input type="checkbox"/><br/>           Over/Under tolerance <input type="checkbox"/><br/>           Part Incorrect <input type="checkbox"/><br/>           Part Lost/Missing <input type="checkbox"/><br/>           Part Moved <input type="checkbox"/><br/>           Drawing <input type="checkbox"/><br/>           Finish <input type="checkbox"/><br/>           Misread <input type="checkbox"/><br/>           Turning Sequence <input type="checkbox"/> </div> </div> |  |                                              |  |
| OTHER : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                              |  |

## Part Specifications

Specifications could not be found.

Plex 3/21/18 10:18 AM Dart.lajeunesse.marie



**Container No: S076411**



**Part: D350-748-241TRN**

**Job No: 174762**

**Serial No/Batch: S076411**

**Revision: H**

**Inspector:**

**Exp Date: 05/30/2018**

**Instructions:**

Dart Aerospace Ltd.  
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Hawkesbury, ON K6A 1K7  
CANADA  
TEL.: 1 813 832-5200  
Email: sales@dartaero.com  
www.dartaerospace.com

Date: 05/30/18

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                              |                                                |                                                                                                                                                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                               |  |  |                                                                                                                                                            |  |
|--------------------------------------------------------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____ |                                                | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> |                                                            | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>             Skid-tube <input type="checkbox"/><br/>             Machining <input type="checkbox"/><br/>             Thermoforming <input type="checkbox"/><br/>             Large Fab <input type="checkbox"/> </div> <div>             Cross tube <input type="checkbox"/><br/>             Small Fab <input type="checkbox"/><br/>             Finishing <input type="checkbox"/><br/>             Composite <input type="checkbox"/> </div> <div>             Water Jet <input type="checkbox"/><br/>             Prod. Eng. Coord. <input type="checkbox"/><br/>             Rec/Store/Packaging <input type="checkbox"/><br/>             Supplier <input type="checkbox"/> </div> <div>             Engineering <input type="checkbox"/><br/>             Quality <input type="checkbox"/><br/>             Other <input type="checkbox"/> </div> </div> |                                               |  |  |                                                                                                                                                            |  |
| Date :                                                       |                                                | Step #:                                                                                                                                                                            |                                                            | QTY Effective :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                               |  |  | <b>MRB (QSI042) Approval</b><br><br>Completed By _____<br><br>Lead hand / Supervisor Approval Verification _____<br><br>QC / QA Coordinator Approval _____ |  |
| Description Work Order Deviation                             |                                                |                                                                                                                                                                                    |                                                            | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                               |  |  |                                                                                                                                                            |  |
|                                                              |                                                |                                                                                                                                                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                               |  |  |                                                                                                                                                            |  |
|                                                              |                                                |                                                                                                                                                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                               |  |  |                                                                                                                                                            |  |
| Root Cause                                                   |                                                | FAULT CATEGORY                                                                                                                                                                     |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                               |  |  |                                                                                                                                                            |  |
| Environment <input type="checkbox"/>                         | No Re-verification <input type="checkbox"/>    | Pressure/Forced <input type="checkbox"/>                                                                                                                                           | Temperature/Cure <input type="checkbox"/>                  | Power Loss/Surge <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Positioned Wrong <input type="checkbox"/>     |  |  |                                                                                                                                                            |  |
| Design <input type="checkbox"/>                              | Operator <input type="checkbox"/>              | Bending <input type="checkbox"/>                                                                                                                                                   | Set-up <input type="checkbox"/>                            | Folio/Program <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Outside Dimensions <input type="checkbox"/>   |  |  |                                                                                                                                                            |  |
| Doc/Data <input type="checkbox"/>                            | Offset/Setup <input type="checkbox"/>          | Centre Not Concentric <input type="checkbox"/>                                                                                                                                     | BOM/Route <input type="checkbox"/>                         | Grain <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Over/Under tolerance <input type="checkbox"/> |  |  |                                                                                                                                                            |  |
| Equip/Tooling <input type="checkbox"/>                       | Supplier <input type="checkbox"/>              | Cracks <input type="checkbox"/>                                                                                                                                                    | Broken/Damage/Defect <input type="checkbox"/>              | Weld <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Part Incorrect <input type="checkbox"/>       |  |  |                                                                                                                                                            |  |
| Handling/Pre <input type="checkbox"/>                        | Training <input type="checkbox"/>              | Crimp/Kink/Ripple/Wave <input type="checkbox"/>                                                                                                                                    | Inspection Incomplete/Unqualified <input type="checkbox"/> | Wrong Stock Pulled <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Part Lost/Missing <input type="checkbox"/>    |  |  |                                                                                                                                                            |  |
| Material <input type="checkbox"/>                            | Use for Testing <input type="checkbox"/>       | Cuffs <input type="checkbox"/>                                                                                                                                                     | Contamination <input type="checkbox"/>                     | Out of Sequence <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Part Moved <input type="checkbox"/>           |  |  |                                                                                                                                                            |  |
| Internal Transport <input type="checkbox"/>                  | Poor Information <input type="checkbox"/>      | Crushing <input type="checkbox"/>                                                                                                                                                  | Countersink <input type="checkbox"/>                       | Off-set <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Drawing <input type="checkbox"/>              |  |  |                                                                                                                                                            |  |
| Tribal Knowledge <input type="checkbox"/>                    | Rushing <input type="checkbox"/>               | Heat Treat <input type="checkbox"/>                                                                                                                                                | Cut Too Short <input type="checkbox"/>                     | Mislabeled <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Finish <input type="checkbox"/>               |  |  |                                                                                                                                                            |  |
| LOA <input type="checkbox"/>                                 | Product Improvement <input type="checkbox"/>   | Wave/Twist in Tube <input type="checkbox"/>                                                                                                                                        | Instructions Incomplete/Unclear <input type="checkbox"/>   | Fit/Function <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Misread <input type="checkbox"/>              |  |  |                                                                                                                                                            |  |
| Substation <input type="checkbox"/>                          | Process Improvement <input type="checkbox"/>   | Marks/Chatter <input type="checkbox"/>                                                                                                                                             | Drill Holes <input type="checkbox"/>                       | Misaligned/off center <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Turning Sequence <input type="checkbox"/>     |  |  |                                                                                                                                                            |  |
| Past Expiry Date <input type="checkbox"/>                    | Manufacturing Process <input type="checkbox"/> | OTHER : _____                                                                                                                                                                      |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                               |  |  |                                                                                                                                                            |  |
| Misidentified <input type="checkbox"/>                       | Past Due <input type="checkbox"/>              |                                                                                                                                                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                               |  |  |                                                                                                                                                            |  |



(4)

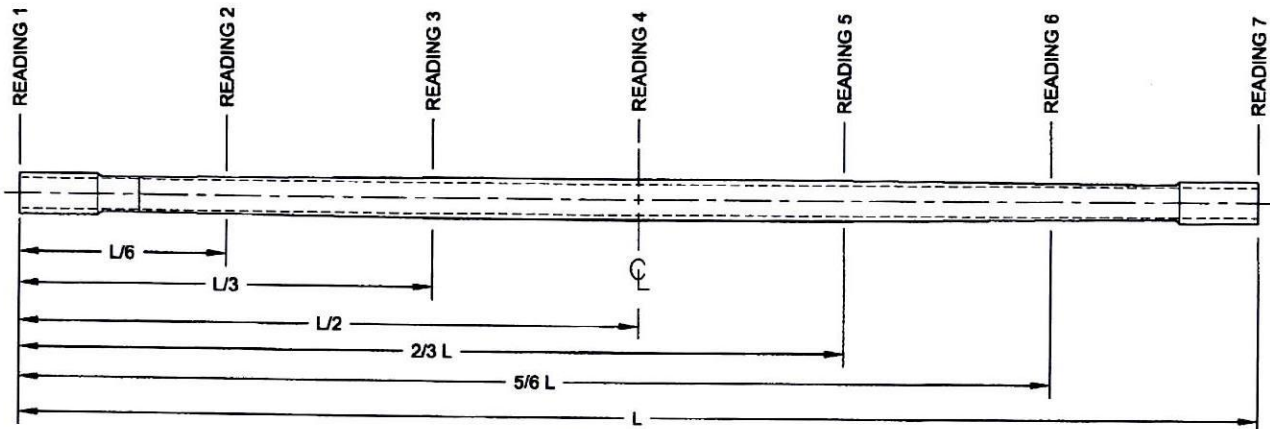
|                                                             |                                  |
|-------------------------------------------------------------|----------------------------------|
| <b>DART AEROSPACE LTD</b>                                   | <b>Work Order:</b> 174762        |
| <b>Description:</b> Crosstube Assembly (AS350/355 High Aft) | <b>Part Number:</b> D350-748-241 |
| <b>Inspection Dwg:</b> D350-748-241 Rev: H                  | <b>Page 1 of 2</b>               |

### FIRST ARTICLE INSPECTION CHECKLIST

| Inspection Sheet<br>Drawing Dimension | Tolerance | Actual<br>Dimension | Accept | Reject | Method of<br>Inspection | Comments |
|---------------------------------------|-----------|---------------------|--------|--------|-------------------------|----------|
| SIDE A                                | 2.240     | +/-0.005            | 2.244  | ✓      |                         | BLM3"04  |
|                                       | 2.180     | +0.005/-0.000       | 2.185  | ✓      |                         |          |
|                                       | 2.180     | +0.005/-0.000       | 2.185  | ✓      |                         |          |
|                                       | 2.208     | +0.005/-0.000       | 2.213  | ✓      |                         |          |
|                                       | 2.234     | +0.005/-0.000       | 2.239  | ✓      |                         |          |
|                                       | 2.253     | +0.005/-0.000       | 2.258  | ✓      |                         |          |
|                                       | 2.272     | +0.005/-0.000       | 2.277  | ✓      |                         |          |
|                                       | 2.299     | +0.005/-0.000       | 2.304  | ✓      |                         |          |
|                                       |           |                     |        |        |                         |          |
|                                       | 0.063     | +/-0.010            | .063   | ✓      |                         | QG       |
|                                       | 5.25      | +/-0.060            | 5.250  | ✓      |                         | vern 08  |
|                                       | R0.063    | +/-0.010            | .063   | ✓      |                         | QG       |
|                                       | R0.50     | +/-0.030            | .500   | ✓      |                         | QG       |
|                                       |           |                     |        |        |                         |          |
| SIDE B                                | 2.240     | +/-0.005            | 2.2435 | ✓      |                         | BLM3"04  |
|                                       | 2.180     | +0.005/-0.000       | 2.185  | ✓      |                         |          |
|                                       | 2.180     | +0.005/-0.000       | 2.185  | ✓      |                         |          |
|                                       | 2.208     | +0.005/-0.000       | 2.213  | ✓      |                         |          |
|                                       | 2.234     | +0.005/-0.000       | 2.239  | ✓      |                         |          |
|                                       | 2.253     | +0.005/-0.000       | 2.258  | ✓      |                         |          |
|                                       | 2.272     | +0.005/-0.000       | 2.277  | ✓      |                         |          |
|                                       | 2.299     | +0.005/-0.000       | 2.303  | ✓      |                         |          |
|                                       |           |                     |        |        |                         |          |
|                                       | 0.063     | +/-0.010            | .063   | ✓      |                         | QG       |
|                                       | 5.25      | +/-0.060            | 5.252  | ✓      |                         | vern 08  |
|                                       | R0.063    | +/-0.010            | .063   | ✓      |                         | QG       |
|                                       | R0.50     | +/-0.030            | .500   | ✓      |                         | QG       |
|                                       |           |                     |        |        |                         |          |
|                                       | 124.70    | +/-0.060            | 124.70 | ✓      |                         | Tape     |

|                                                             |                                  |
|-------------------------------------------------------------|----------------------------------|
| <b>DART AEROSPACE LTD</b>                                   | <b>Work Order:</b> 174762        |
| <b>Description:</b> Crosstube Assembly (AS350/355 High Aft) | <b>Part Number:</b> D350-748-241 |
| <b>Inspection Dwg:</b> D350-748-241 <b>Rev:</b> H           | <b>Page 2 of 2</b>               |

### WALL THICKNESS MEASUREMENT



| Location               | WALL THICKNESS MEASUREMENT (IN) |      |      |      | Deviation<br>$\Delta w$<br>(max-min) | TOLERANCE |
|------------------------|---------------------------------|------|------|------|--------------------------------------|-----------|
|                        | w1                              | w2   | w3   | w4   |                                      |           |
| READING 1<br>L= 0"     | .123                            | .115 | .119 | .126 | .011                                 | 0.030"    |
| READING 2<br>L= 20.78  | .106                            | .108 | .113 | .111 | .007                                 |           |
| READING 3<br>L= 41.57  | .140                            | .144 | .149 | .144 | .009                                 |           |
| READING 4<br>L= 62.35  | .143                            | .143 | .150 | .151 | .008                                 |           |
| READING 5<br>L= 83.13  | .149                            | .138 | .141 | .149 | .011                                 |           |
| READING 6<br>L= 103.92 | .109                            | .107 | .108 | .112 | .005                                 |           |
| READING 7<br>L= 124.70 | .119                            | .114 | .116 | .121 | .007                                 |           |

#### Calibration Result

Actual Block Thickness: 100-200

Sitescan 250 Measured Thickness: 100-200

|                         |
|-------------------------|
| <b>Measured by:</b> M.D |
| <b>Date:</b> 2018-05-30 |

|                           |
|---------------------------|
| <b>Audited by:</b> GPJ/TW |
| <b>Date:</b> 18-06-01     |

|                              |
|------------------------------|
| <b>Preliminary Approval:</b> |
| <b>Date:</b>                 |

| Rev | Date     | Change                                       | Revised by | Approved |
|-----|----------|----------------------------------------------|------------|----------|
| C   | 12.06.04 | Wall thickness form added (P/O D350-748-201) | KJ         |          |
| D   | 13.02.27 | Dimension 5.25 was 4.26                      | KJ         |          |
| E   | 14.04.25 | 122.70 dimension revised to 124.70           | KJ         |          |
| F   | 15.04.14 | Dwg Rev updated                              | KJ         |          |
| G   | 15.09.09 | Tolerance updated for dimension 2.240        | KJ         |          |



| Item | Qty<br>-241 | Part Number     | Description                                                |
|------|-------------|-----------------|------------------------------------------------------------|
| 1    | X           | D350-748-241    | CROSSTUBE ASSEMBLY (AS 350/355 HI AFT)                     |
| 2    | 1           | D6015-125       | CROSSTUBE (OR D6018-125)                                   |
| 3    | 2           | D3502-1         | SUPPORT                                                    |
| 4    | 2           | D5123-7         | CLAMP CUSHION                                              |
| 5    | 1           | AELS-1032-225   | INSERT                                                     |
| 6    | 1           | NAS1149D0363J   | WASHER (OR AN960JD10)                                      |
| 7    | 2           | MS21920-20      | CLAMP (OR MS21920-21/-22, PER DART SPEC. M-MS21920-21/-22) |
| 8    | 1           | MS27039-1-10    | SCREW                                                      |
| 9    | A/R         | PROSEAL 890 B-2 | SEALANT, AMS-S-8802 CLASS B-2                              |

#### GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6015-125 OR D6018-125  
FINISHED LENGTH AFTER TURNING = 124.70±0.06 (AFTER BENDING/TRIMMING = 122.70 REF)
- 2) FINISH: MAGNETIC PARTICLE INSPECT PER DART QSI 038 4.2  
CADMIUM PLATE PER AMS-QQ-P-416B, CLASS 1, TYPE II  
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2  
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCE: PER DART QSI 018 UNLESS OTHERWISE NOTED.  
WALL THICKNESS ECCENTRICITY PER DART QSI 038 7.2  
MIN. ALLOWABLE WALL IS -0.020 FROM NOMINAL
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: DART PART NUMBER "D350-748-241" AND BATCH NUMBER ON INSIDE OF CUFF  
PER DART QSI 044 6.4 (VIBRATING STYLUS)
- 7) WEIGHT: 29.85 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE, EXCEPT FOR Ø0.297 HOLE.
- 9) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE. WHEN DRILLING HOLES EXTREME CARE MUST BE TAKEN AND CAREFUL DEBURRING PERFORMED TO ENSURE A CLEAN HOLE WITH NO CRACKING/CHIPPING/GROOVES.

#### TURNING

- 10) BLEND OUT ALL EDGES FROM MACHINING LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH. NOTE: ALL HOLES ARE DRILLED AFTER BENDING.
- 11) HEAT TREAT TO MIN. 180 KSI PER MIL-T-6736 OR AMS2750/1E AFTER TURNING. ACCEPTABLE TO VERIFY TENSILE STRENGTH BY HARDNESS TEST PER ASTM E18 TO 40-45 HRC.

#### BENDING

- 12) ALL DIMENSIONS FOR BENT TUBE ARE POST STRESS RELIEF
- 13) BEND PROGRESSIVELY WITH A MINIMUM OF 7 PASSES PER SIDE. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 8% BASED ON O.D. ON TOP HALF OF BEND, AND 8% ON BOTTOM HALF OF BEND.
- 14) MAX AMPLITUDE OF RIPPING ALONG BENT PORTION OF THE TUBE IS 0.030 (ZN A1-3)
- 15) AFTER BENDING, STRESS RELIEVE TUBE AT 650°F ±10.25°F FOR A MINIMUM OF 2 HRS AND ALLOW TO COOL TO AMBIENT TEMPERATURE (REF AMS2750/1E).
- 16) MAX TWIST AFTER STRESS RELIEF: WITH XTUBE LAYED FLAT ON SURFACE, THE DIFFERENCE BETWEEN CUFF HEIGHTS FROM THE SURFACE MAY BE NO LARGER THAN 0.38 (ZN C1-3).

#### ASSEMBLY

- 17) TO INSTALL D3502-1 SUPPORT: ABRASE MATING SURFACE OF SUPPORT AND CROSSTUBE WITH 180-GRIT SANDPAPER AND REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY A 0.02" TO 0.05" THICK LAYER OF PROSEAL 890 CLASS B-2 (OR AMS-S-8802 CLASS B-2) SEALANT TO MATING SURFACE OF SUPPORT.
- 18) TORQUE CLAMPS 80 TO 80 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING. PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER PROSEAL 890 SEALANT HAS CURED FOR 72 HOURS.

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WORK ORDER  
NO. 174762 M5  
1803-21

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2015 MAR 18

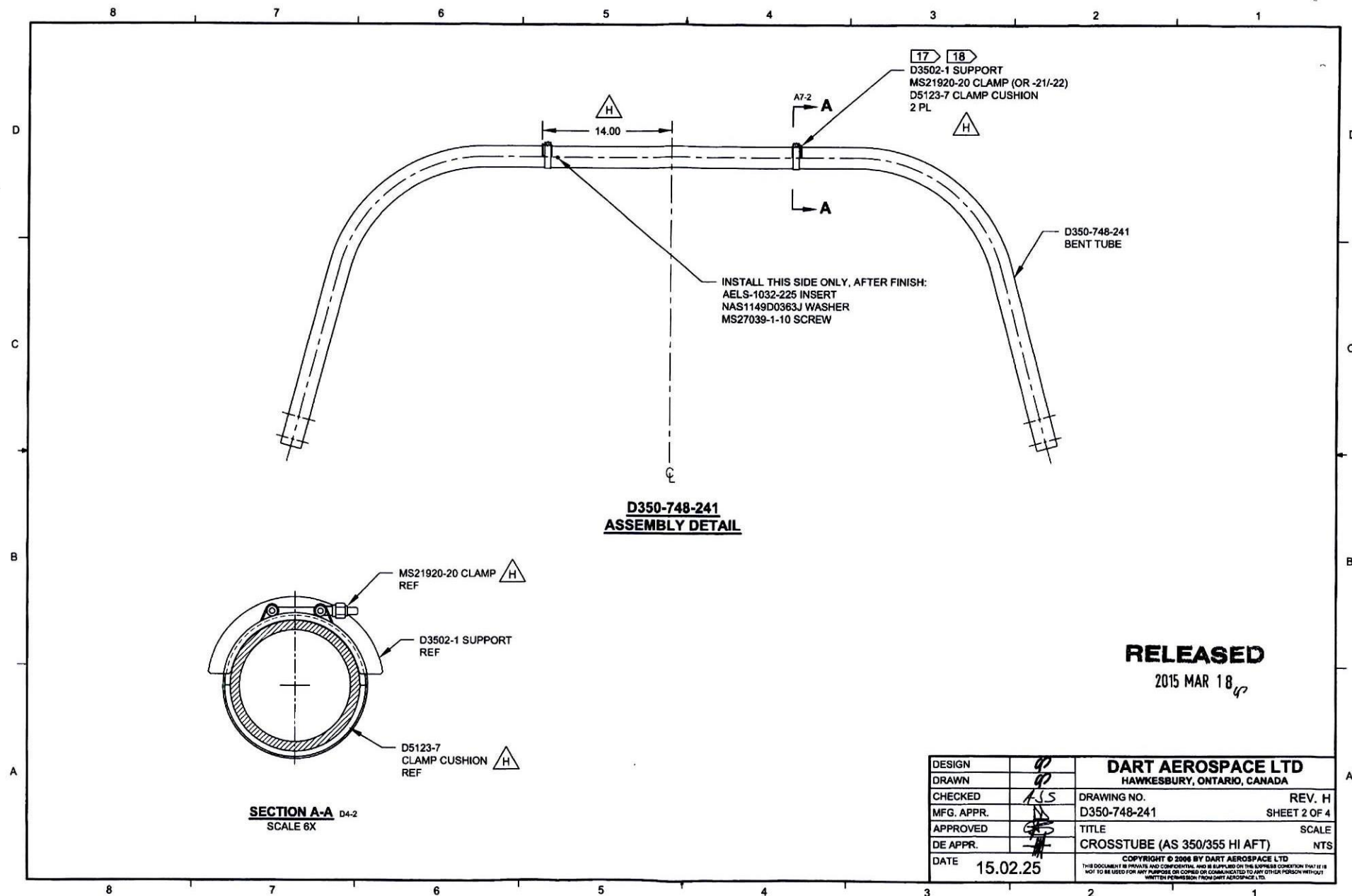
9P ECU 15-547

|            |                                                                                                                                          |    |          |
|------------|------------------------------------------------------------------------------------------------------------------------------------------|----|----------|
| H          | D5123-7 WAS D3595-063-365, MS21920-20 WAS -22, ALLOWABLE CRUSHING NOW 8% WAS 7%, 14.00 WAS 14.37 (D5-2), 12.32 WAS 12.69 (D5-3)          | CP | 15.02.25 |
| G          | RMV ABRASION STRIP, SUPPORT NOW W/ PROSEAL & CUSHION, ADD STRESS RELIEF, LONGER CUFF, NOW TRIM'D AFTER BEND, ADD WALL DIMS & UPDATE TOL. | CP | 12.08.12 |
| F          | ADD HRC TEST OPTION (B8-1) PER PAR 09-040, ADD TWIST LIMIT (A8-1, C1-3), ADD D6015-125 OPTION (C8-1), STOCK DIM NOW MACHINED (D1-4)      | CP | 10.11.23 |
| E          | REVISE GENERAL NOTES; UPDATE TO CURRENT STANDARDS; RELOCATED FLAG #6 PER PAR 08-046 (ZN A8-3); ADD TOLERANCES (ZN C6-3, D2-3)            | RF | 09.09.30 |
| D          | MAG. PARTICLE AND CAD PLATE AS MFD.                                                                                                      | CP | 08.10.31 |
| C          | ADD CAD PLATING                                                                                                                          | CP | 06.08.14 |
| B          | ADD D6018-125 & PRIME AND PAINT                                                                                                          | CP | 06.06.30 |
| A          | NEW ISSUE                                                                                                                                | CP | 06.03.31 |
| REV.       | DESCRIPTION                                                                                                                              | BY | DATE     |
| DESIGN     |                                                                                                                                          |    |          |
| DRAWN      |                                                                                                                                          |    |          |
| CHECKED    |                                                                                                                                          |    |          |
| MFG. APPR. |                                                                                                                                          |    |          |
| APPROVED   |                                                                                                                                          |    |          |
| DE APPR.   |                                                                                                                                          |    |          |
| DATE       | 15.02.25                                                                                                                                 |    |          |

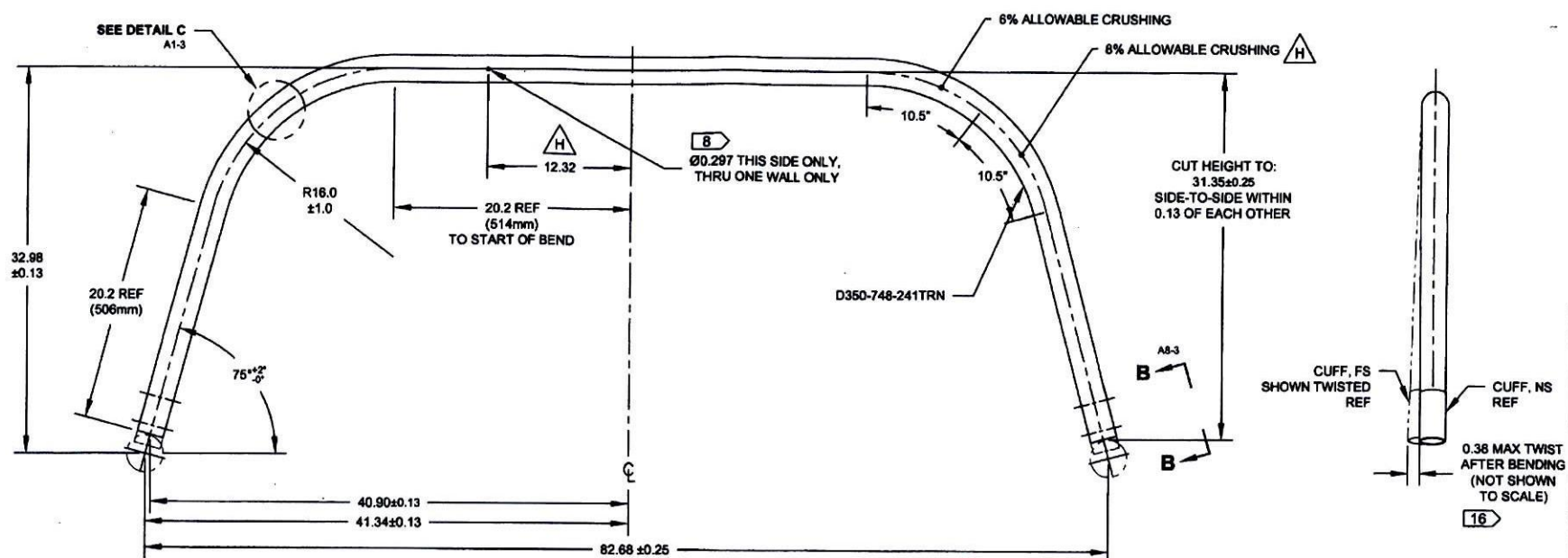
**DART AEROSPACE LTD**  
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. REV. H  
D350-748-241 SHEET 1 OF 4  
TITLE SCALE  
CROSSTUBE (AS 350/355 HI AFT) NTS

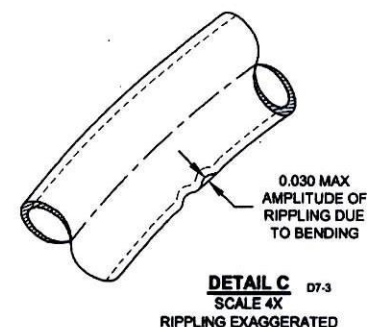
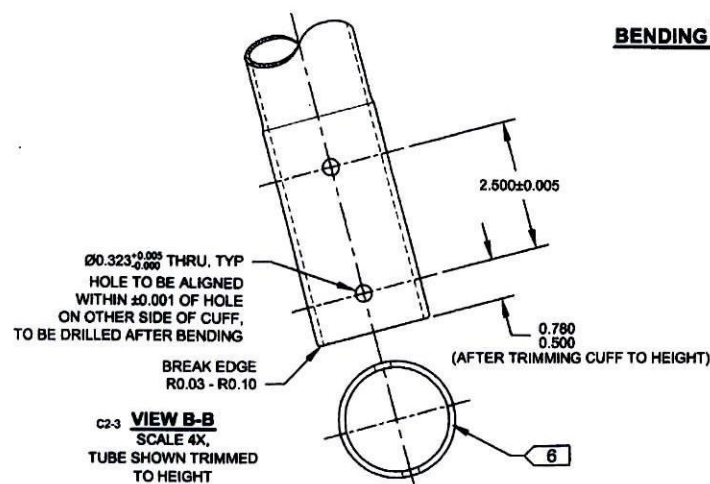
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**D350-748-241**  
**BENDING AND DRILLING DETAIL** 10



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2015 MAR 18

|                                                                                                                                                                                                                                                |          |                                        |              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------|--------------|
| DESIGN                                                                                                                                                                                                                                         | 90       | <b>DART AEROSPACE LTD</b>              |              |
| DRAWN                                                                                                                                                                                                                                          |          | HAWKESBURY, ONTARIO, CANADA            |              |
| CHECKED                                                                                                                                                                                                                                        | AS       | DRAWING NO.                            | REV. H       |
| MFG. APPR.                                                                                                                                                                                                                                     |          | D350-748-241                           | SHEET 3 OF 4 |
| APPROVED                                                                                                                                                                                                                                       |          | TITLE                                  | SCALE        |
| DE APPR.                                                                                                                                                                                                                                       |          | CROSSTUBE (AS 350/355 HI AFT)          | NTS          |
| DATE                                                                                                                                                                                                                                           | 15.02.25 | COPYRIGHT © 2006 BY DART AEROSPACE LTD |              |
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Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# **PURCHASE ORDER** **PO040105**

**Supplier:** MET002-VU  
Metlab  
1000 E. Mermaid Lane  
Wyndmoor, PA 19038 USA  
Phone: 215-233-2600  
Fax: 215-233-5653

**PO No:** PO040105  
**PO Date:** 6/5/18  
**Due Date:** 6/20/18  
**Purchase Order**  
**Revision:**  
**Revision Date:**  
**Ship-To Contact:** Phone:

**Ship To:** 1270 Aberdeen Street  
Hawkesbury  
ON  
K6A 1K7 Canada  
Phone: 613-632-5200

**Via:** Ground  
**Pynt Terms:** Net 30  
**Freight Terms:**  
**Special Comments:**

## **Items**

| Line Item         | Job    | Part            | Description                                                                                                                                                                                                                                                                                                                                   | Status | Due Date | Order Quantity | Received Quantity | Balance   | Unit Price (USD) | Extended Price    |
|-------------------|--------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|----------------|-------------------|-----------|------------------|-------------------|
| 1                 | 174757 | D350-748-241TRN | Crosstube Turning Detail<br>Issue P/O: _____<br>Heat Treat to min 180 KSI As per Dwg D350-748-241<br><br>***Check for straighten and ensure parts are straight within 1/8" as per dwg ***<br><br>Sand Blast tube after Heat Treat<br>Possible Supplier: Vac Aero<br>Ensure Certificate of Conformity is attached and Metlab process spec form | Firmed | 6/20/18  | 1 pcs          | 0 pcs             | 1 pcs     | \$205.00/pcs     | \$205.00          |
|                   | 174761 |                 |                                                                                                                                                                                                                                                                                                                                               | Firmed | 6/20/18  | 1 pcs          | 0 pcs             | 1 pcs     | \$205.00/pcs     | \$205.00          |
|                   | 174756 |                 |                                                                                                                                                                                                                                                                                                                                               | Firmed | 6/20/18  | 1 pcs          | 0 pcs             | 1 pcs     | \$205.00/pcs     | \$205.00          |
|                   | 174751 |                 |                                                                                                                                                                                                                                                                                                                                               | Firmed | 6/20/18  | 1 pcs          | 0 pcs             | 1 pcs     | \$205.00/pcs     | \$205.00          |
|                   | 174754 |                 |                                                                                                                                                                                                                                                                                                                                               | Firmed | 6/20/18  | 1 pcs          | 0 pcs             | 1 pcs     | \$205.00/pcs     | \$205.00          |
|                   | 174752 |                 |                                                                                                                                                                                                                                                                                                                                               | Firmed | 6/20/18  | 1 pcs          | 0 pcs             | 1 pcs     | \$205.00/pcs     | \$205.00          |
|                   | 174763 |                 |                                                                                                                                                                                                                                                                                                                                               | Firmed | 6/20/18  | 1 pcs          | 0 pcs             | 1 pcs     | \$205.00/pcs     | \$205.00          |
|                   | 174750 |                 |                                                                                                                                                                                                                                                                                                                                               | Firmed | 6/20/18  | 1 pcs          | 0 pcs             | 1 pcs     | \$205.00/pcs     | \$205.00          |
|                   | 174759 |                 |                                                                                                                                                                                                                                                                                                                                               | Firmed | 6/20/18  | 1 pcs          | 0 pcs             | 1 pcs     | \$205.00/pcs     | \$205.00          |
|                   | 174764 |                 |                                                                                                                                                                                                                                                                                                                                               | Firmed | 6/20/18  | 1 pcs          | 0 pcs             | 1 pcs     | \$205.00/pcs     | \$205.00          |
|                   | 174765 |                 |                                                                                                                                                                                                                                                                                                                                               | Firmed | 6/20/18  | 1 pcs          | 0 pcs             | 1 pcs     | \$205.00/pcs     | \$205.00          |
|                   | 174762 |                 |                                                                                                                                                                                                                                                                                                                                               | Firmed | 6/20/18  | 1 pcs          | 0 pcs             | 1 pcs     | \$205.00/pcs     | \$205.00          |
|                   | 174758 |                 |                                                                                                                                                                                                                                                                                                                                               | Firmed | 6/20/18  | 1 pcs          | 0 pcs             | 1 pcs     | \$205.00/pcs     | \$205.00          |
|                   | 174755 |                 |                                                                                                                                                                                                                                                                                                                                               | Firmed | 6/20/18  | 1 pcs          | 0 pcs             | 1 pcs     | \$205.00/pcs     | \$205.00          |
|                   | 174760 |                 |                                                                                                                                                                                                                                                                                                                                               | Firmed | 6/20/18  | 1 pcs          | 0 pcs             | 1 pcs     | \$205.00/pcs     | \$205.00          |
| <b>Sub Total:</b> |        |                 |                                                                                                                                                                                                                                                                                                                                               |        |          | <b>15</b>      | <b>0</b>          | <b>15</b> |                  | <b>\$3,075.00</b> |



1000 E. Mermaid La., Wyndmoor (Phila.) PA 19038-8093  
Tel. (215) 233-2600 Fax (215) 233-5653

## Certification - R

### SOLD TO

Dart Aerospace  
1270 Aberdeen St.  
Hawkesbury, ON K6A 1K7  
Canada

July 11, 2018

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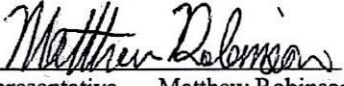
|                           |                                                                                                                                                                                   |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Metlab Shop Order:</b> | 100948                                                                                                                                                                            |
| <b>Purchase Order:</b>    | PO040105                                                                                                                                                                          |
| <b>Description:</b>       | Crosstube                                                                                                                                                                         |
| <b>Part Number:</b>       | D350-748-241TRN (15 Each)<br>D350-748-141TRN (15 Each)                                                                                                                            |
| <b>Weight:</b>            | 1310 Pounds Total                                                                                                                                                                 |
| <b>Material:</b>          | 4130 Alloy Steel                                                                                                                                                                  |
| <b>Specifications:</b>    | Harden and temper to 180 KSI minimum ultimate tensile strength (40 HRC surface hardness) per MIL-T-6736 or AMS 2759-1C. Maintain part straightness < 1/8" over total part length. |

---

This is to certify that the above parts were processed as indicated above and conform to the specification requirements.

### Results:

Hardness: 41/42 HRC

METLAB   
Quality Representative Matthew Robinson

MERCURY CONTAMINATION: During the heat treating process, testing and inspections, the product did not come in direct contact with mercury or any of its compounds nor with any mercury containing device.



Heat Treating and Metallurgical Consulting



**METLAB**  
**1000 E. MERMAID LANE**  
**WYNDMOOR, PA 19038**

# Packing List

Sales Order Number:

100948

Sales Order Date:

Jun 7, 2018

Page:

1

Voice: 215-233-2600  
Fax: 215-233-5653

**Sold To:**

DART AEROSPACE  
1270 ABERDEEN STREET  
HAWKESBURY, ON K6A 1K7  
CANADA

**Ship To:**

DART AEROSPACE  
1270 ABERDEEN STREET  
HAWKESBURY, ON K6A 1K7  
CANADA

| Customer ID   | PO Number | Payment Terms |
|---------------|-----------|---------------|
| DARA          | PO040105  | Net 30 Days   |
| Ship Via      | Process   |               |
| CALL CUSTOMER | HT        |               |

| Quantity | Item  | Description                                                                                                                                                                                                                                    | Total Shipped | This Shipment |
|----------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------|
| 30.00    |       | 30 PCS<br>PART#: D350-748-241TRN<br>CROSSTUBES<br>HEAT TREAT TO MIN 180 KSI AS PER DWG<br>D350-748-241<br>CHECK FOR STRAIGHTEN AND ENSURE PARTS<br>ARE STRAIGHT WITHIN 1/8" AS<br>PER DWG. SAND BLAST TUBE AFTER HEAT<br>TREAT.<br>1310 POUNDS |               |               |
| 1.00     | CERT. |                                                                                                                                                                                                                                                |               |               |

COMMENTS

SHIPPED BY, SIGNATURE  
METLAB

DATE

RECEIVED BY, SIGNATURE  
DART AEROSPACE

DATE